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The Thames Barrier - 25 years on

1 February 2008

Met Office looks to development of ten year climate forecasts to strengthen UK contingency planning.

On the day that marks 25 years since the Thames Barrier was first raised to protect London from possible flooding, experts from the Met Office say that the next quarter century could see greater frequency of extreme weather events along with more torrential rain, particularly during winter months.

The Barrier offers London unparalleled protection against North Sea tidal surges as well as holding back high tides when the river is swollen by heavy rainfall upstream. And the Met Office is currently providing advice to the Environment Agency on the possible impact of climate change in the south-east as it considers options for flood risk management in the Thames Estuary up to the year 2100.

Climate scientists at the Met Office Hadley Centre have been the first in the world to develop ten year climate forecasts, which it will use alongside the 50 or 100 year time frame projections currently deployed worldwide.

Such decadal forecasts would offer predictions of more direct, practical relevance to organisations where adaptation to global warming is a key operational concern.

Decadal models seek to forecast natural variability, such as El Niño and fluctuations in the Gulf Stream, in addition to man-made climate change. This has already been demonstrated to improve the skill of global temperature predictions and climate forecasts on a regional basis are currently being assessed.

Ten year forecasts could prove strategically important for local authorities, emergency services and operators of key infrastructure as they plan for more extreme weather in regions right across the UK.

Phil Evans, Chief Advisor to Government at the Met Office says: "The Thames Barrier was conceived following the 1953 floods that left large parts of England's east coast under water. Given a rise in sea level and warmer temperatures in the UK we can expect more severe weather events in the future than back then.

"Making the most of the climate change expertise we have in the UK provides us with an unparalleled opportunity to plan effectively for the future.

"In the coming years, Met Office decadal forecasts could help planners, emergency responders and local authorities better prepare for the impacts of climate change."

While the Thames Barrier safeguards London from tidal surges and river floods, the capital as with other areas of the UK, is likely to be at increased risk of flooding caused by surface water run off. Ten year climate predictions providing data for changes in rainfall could highlight risks such as drought, fire and flood.

For further information:

Met Office Press Office +44 (0)1392 886655
E-mail: pressoffice@metoffice.gov.uk

Met Office Customer Centre 0870 900 0100
If you're outside the UK +44 (0)1392 885680